

| 2016 -2017 Collaborative Agreement Between EPA, U.S.-Mexico Border 2020 Program and BHC (U.S. Section)  | EPA lead   | BHC lead   | Status         |
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| <p><b><u>1 - Lead Environmental Health Efforts in the Border Region</u></b></p> <p>EPA and BHC will lead the implementation of environmental health goals included in the BHC's Healthy Border (HB) 2020 report and in EPA's Border 2020 program. The primary goal of these strategic frameworks is to provide international leadership to optimize public health and quality of life along the U.S.-México border. EPA and BHC will collaborate to implement Healthy Border 2020 and Border 2020 focusing on environmental and public health challenges of mutual concern and priority in the border region. A report describing the frameworks is available on the BHC website: [ <a href="http://www.borderhealth.org">HYPERLINK "http://www.borderhealth.org"</a> ] and EPA website <a href="http://www2.epa.gov/border2020/">www2.epa.gov/border2020/</a>. Specific goals include:</p> <ul style="list-style-type: none"> <li>• Improve the quality of life for border residents and</li> <li>• Eliminate the health disparities in border communities.</li> </ul> | <p>R9: Jeremy Bauer, Jessica Helgesen<br/>R6: Maria Sisneros</p> | <p>Jose Velasco, Nicole Baker</p>                  | <p>Ongoing</p> |
| <p><b><u>1 - Action:</u></b></p> <div style="border: 1px dashed black; padding: 50px; text-align: center;"> <h2>Ex. 5 Deliberative Process (DP)</h2> </div>   |  |  |                |
| <p><b><u>2 – Leaders across Borders</u></b></p> <p>EPA and the BHC will collaborate on the Leaders across Borders program. Leaders across Borders is an advanced leadership development program aimed at building the binational leadership capacity of public health, health care, and other community-sector leaders working to improve the community health in the U.S.-México border region. The annual program is open to experienced public health, health care, and other community-sector leaders working in the U.S.-México border region. Application information is distributed by the BHC. Approximately 20 applicants are selected each year with approximately half originating from</p>  | <p>Marta Jordan</p>  | <p>Jose Velasco, Robert Guerrero, Nicole Baker</p> | <p>Ongoing</p> |

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| <p>each side of the U.S.-Mexico Border. EPA and the BHC will identify priority projects and efforts on environmental health for incoming leadership cohorts. Specific goals include:</p> <ul style="list-style-type: none"> <li>• Development of curriculum material on environmental health topics such as integrated pest management, air quality and asthma triggers, chemical and pesticide exposure and</li> <li>• Pilot project technical support.</li> </ul>  |   |                            |         |
| <p>2 – Action:</p> <div style="border: 1px dashed black; padding: 20px; text-align: center;"> <h2>Ex. 5 Deliberative Process (DP)</h2> </div>   |   |                            |         |
| <p>3 – <u>Chemical and Pesticide Exposure Prevention</u></p> <ul style="list-style-type: none"> <li>• Partner with border communities to develop strategies to identify sources of chemical and pesticide exposure and actions that reduce exposure to lead, mercury, pesticides, and other heavy metals in the environment,</li> <li>• Work with border communities to identify and implement a pest management approach that uses the least toxic method first (Integrated Pest Management) for the control of insect and rodent pests,</li> <li>• Collaborate with state and local governments and communities to develop pilot projects that foster the adoption of integrated pest management in the school environment to reduce children’s exposure to pesticides and asthma triggers while achieving effective pest control on school property,</li> <li>• Engage healthcare providers (physicians, nurses, promotores/community health workers) on the recognition and reporting of illnesses and poisonings caused by lead, pesticides, and other chemicals, and</li> <li>• Provide training to farmworkers and local community members on pesticide use.</li> </ul> | R9: Fabiola Estrada, Jeremy Bauer, Jessica Helgesen | Jose Velasco, Nicole Baker | Ongoing |
| <p>3 – Action:</p>   |   |                            |         |

## Ex. 5 Deliberative Process (DP)

### 4 - Vector-borne Diseases, including Zika Virus

EPA and BHC will complement the efforts of CDC to help address vector borne diseases in the border region, including Zika virus, leveraging planned events such as U.S.-Mexico Border Health Month, binational and regional workshops, and environmental health symposia. Cases of Zika virus have continued to increase in Mexico, U.S. territories, and more recently in the continental United States. Efforts between EPA and BHC in coordination with CDC will help to reduce the risk of infection along the border, for example, increasing community capacity to recognize and address sources of mosquitoes such as standing water and reinforcing the importance of personal protection such as wearing long sleeves and using insect repellent. Climate, high volume international ports, presence of the *aedes* mosquito vector, and pervasive trash and scrap tires holding standing water are all factors contributing to the potential risk of the spread of the Zika virus in the border region. Specific collaboration opportunities include:

- Education and outreach focused on pesticide and integrated pest management, including providing materials focused on controlling mosquitos and the dangers of pesticide misuse/overuse.
  - Provide bilingual information to communities considered at-risk for mosquito-borne illnesses and pesticide misuse.
  - Provide targeted pesticide and IPM training for local government officials and communities.

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Marta Jordan

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| <ul style="list-style-type: none"> <li>• <b>Prevention and Protection Projects</b> focused on clean up events to address mosquito breeding grounds, including the removal and management of scrap tires.</li> <li>• <b>Binational symposia</b> of environmental health and public health professionals designed to share information and best practices, build awareness, and increase coordination and collaboration across organizations.</li> <li>• <b>Involvement with local health departments and communities</b> to develop emergency preparedness plans in case of an outbreak or increase in cases with special emphasis on migrants, children, and women of child-bearing age.</li> </ul> |  |                                     |  |
| <p><b>4- Action:</b></p> <div style="border: 1px dashed black; padding: 40px; text-align: center;"> <h2 style="margin: 0;">Ex. 5 Deliberative Process (DP)</h2> </div>  |  |                                     |  |
| <p><b>5 – <u>Pediatric Environmental Health Specialty Units (PEHSU)</u></b><br/> EPA and BHC will engage the existing PEHSUs within EPA Region 6 and 9 to support environmental efforts along the border. The PEHSUs are composed of experts in children's environmental health and are funded in part by EPA and the Agency for Toxic Substances and Disease Registry (ATSDR) to improve the environmental health of children by</p>   | R6: Maria<br>Sisneros<br>R9: Jeremy<br>Bauer,<br>Jessica | Jose<br>Velasco,<br>Nicole<br>Baker |  |

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| <p>enhancing educational and consultative services to clinicians, health professionals, and the community and providing evidence-based information from a network of experts in environmental health. The PEHSU's three-pronged approach consists of education of health professionals and communities, consultation to health professionals and communities, and referral to appropriate facilities for evaluation and treatment. Specific goals include:</p> <ul style="list-style-type: none"> <li>• Assist in the implementation of the newly established [ <a href="http://aoec.org/pehsu/aboutus.html">HYPERLINK "http://aoec.org/pehsu/aboutus.html"</a> ] unit in El Paso Texas, established as a collaborative effort between EPA Region VI, the BHC, Texas Tech University Health Sciences Center, the Southwest Center for Pediatric Environmental Health, the West Texas Regional Poison Center, the ATSDR and</li> <li>• Explore opportunities to establish additional PEHSUs along the U.S.-Mexico Border.</li> </ul>   | Helgesen,<br>and Jackie<br>Menghrajani |   |  |
| <p>5 – Action:</p> <div> <h2>Ex. 5 Deliberative Process (DP)</h2> </div>   |  |   |  |
| <p>6- <u>Community-based Healthy Border Initiatives</u></p> <p>EPA and BHC will participate in Community-based Healthy Border Initiatives (CBHBI), Border Binational Health Month (BBHM), and other binational and regional workshops, environmental health fairs and expositions, including planning efforts to enhance environmental health awareness focused on lead, pesticides, asthma triggers, worker safety, integrated pest management, and other relevant environmental health topics. Specific goals include:</p> <ul style="list-style-type: none"> <li>• Work with local NGOs engaged in efforts to reduce the “take home pathway” of pesticide exposure, for the safety of the agricultural workers and their families,</li> <li>• Showcase proven and/or innovative Integrated Pest Management (IPM) programs in schools and/or the home,</li> <li>• Hold joint regional stakeholder meetings, when appropriate, to communicate program successes, outputs and outcomes while seeking input from stakeholders and communities on pressing issues, and</li> </ul> | Marta Jordan                           | Jose Velasco,<br>Nicole Baker,<br>U.S. Office of Border Health Directors (RJ Dutton, Freida Adams, Robert Guerrero, |  |

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| <ul style="list-style-type: none"> <li>• Utilize health care providers, staff, and promotores/community health workers to identify and abate asthma triggers and indoor air quality.</li> <li>• Work with youth to increase environmental literacy, promote capacity building, raise awareness, and exchange information regarding localized public health issues.</li> </ul>  |  | April Fernandez )  |         |
| <p>6 – Action:</p> <div style="border: 1px dashed black; padding: 20px; text-align: center;"> <h2>Ex. 5 Deliberative Process (DP)</h2> </div>  |  |  |         |
| <p>7 – <u>Air Quality and Asthma Education Awareness</u></p> <p>Poor air quality may contribute to and exacerbate asthma. Increased risk factors in the border region include air pollution, dust, agricultural burning, and various household hazards (such as indoor mold, pests, pet dander, and household chemicals) which can contribute to disparities in asthma rates between communities living along the border and those in other parts of the U.S. or Mexico. Specific goals include:</p> <ul style="list-style-type: none"> <li>• Partner with state and local governments and border stakeholders to identify and reduce exposure to hazardous chemicals and asthma triggers in and around the home and schools through education, awareness, and the use of best practices for vector control.</li> <li>• Leverage existing federal resources towards actions that address environmental and public health challenges along the U.S.-Mexico Border by coordinating and collaborating across federal agencies, building on existing and effective federal programs and partnerships, and doing “more of what we know works.”</li> </ul> | Marta Jordan<br>R9: Jeremy Bauer and Priyanka Pathak<br>R6:? | Jose Velasco, Nicole Baker, U.S. Office of Border Health Directors | Ongoing |
| <p>7 – Action:</p> <div style="border: 1px dashed black; padding: 20px; text-align: center;"> <h2>Ex. 5 Deliberative Process (DP)</h2> </div>  |  |  |         |

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| <p><b><u>8 - Climate Change</u></b><br/> EPA and BHC climate change efforts will focus on actions to help border communities become more resilient to the effects of climate change. The risks posed from climate change are well-documented and vast. These risks may include increases in smog levels, rising sea levels, increased precipitation intensity and droughts, which can also pose significant economic, environmental and public health challenges to border communities. By making choices that reduce greenhouse gas pollution, and preparing for the changes that are already underway, we can reduce risks from climate change. Specific goals include:</p> <ul style="list-style-type: none"> <li>• Identify and develop tools and trainings to identify emerging public health and environmental challenges to reduce the expected toll that climate change would make in the Border Region.</li> </ul> | Marta Jordan | Jose Velasco | Ongoing |
| <p><b><u>8 - Action:</u></b></p> <div style="border: 1px dashed black; padding: 20px; text-align: center;"> <h2 style="margin: 0;">Ex. 5 Deliberative Process (DP)</h2> </div>  |              |              |         |
| <p><b><u>9 - Identify Project Funding and Leveraging Opportunities</u></b><br/> EPA and the BHC will collaborate and leverage their respective and external resources and partnerships to fulfill joint efforts that achieve EPA and BHC environmental health priorities and goals, as outlined in this agreement. This collaboration will consider</p>   | Marta Jordan | Jose Velasco | Ongoing |

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| <p>respective budget constraints and will focus on maximum leveraging of external resources. Specific goals include:</p> <ul style="list-style-type: none"> <li>• Engage philanthropic organizations to build donor knowledge and support of border environmental and public health efforts and</li> <li>• Engage internal and external partners to support project and efforts that help fulfill commitments within this collaborative agreement.</li> </ul>   |              |              |  |
| <p>9 - Action:</p> <div style="border: 1px dashed black; padding: 20px; text-align: center;"> <h2>Ex. 5 Deliberative Process (DP)</h2> </div>  |              |              |  |
| <p>10 - [ <a href="http://www.borderhealth.org/e_border_health.php?newsletter=7160&amp;article=">HYPERLINK "http://www.borderhealth.org/e_border_health.php?newsletter=7160&amp;article="</a> ] EPA and the BHC will leverage their existing resources to facilitate binational knowledge exchange on environmental and public health issues, through existing binational mechanisms and fora. Specific goals include:</p> <p><b>Task Forces and COBINAS:</b> EPA and the BHC will identify opportunities to share information and identify and address regional concerns and priorities, taking into account input from the Border 2020 task forces, local stakeholders, and the binational health councils (COBINAS).</p> <p><b>U.S.-México Border Health Activities of Mutual Interest:</b> EPA and the BHC will partner during any activities of mutual interest, such as seminars, conferences, workshops, trainings, etc., to share scientific information and findings and explore linkages between the environment and health impacts, such as asthma, cancer, obesity, diabetes, and others.</p> | Marta Jordan | Jose Velasco |  |
| <p>10 - Action:</p> <div style="border: 1px dashed black; padding: 5px; text-align: center;"> <p>Ex. 5 Deliberative Process (DP)</p> </div>  |              |              |  |



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| <p><b><u>11 - Develop Public Access to Environmental and Public Health Data</u></b></p> <p>Public access to environmental and public health data empowers the public by helping them to understand the magnitude and health effects of pollutants in the environment and highlights disproportionate environmental and health impacts where they exist. The access to this information also helps community leaders and decision-makers to recognize and work to address and reduce these disparities. Specific goals include:</p> <ul style="list-style-type: none"> <li>• EPA and BHC will work towards compiling existing border environmental health information from credible sources (such as local and state health statistics from public health authorities) to better document environmental health conditions along the U.S.-Mexico border in order to identify vulnerable communities, and target collaborative interventions.</li> <li>• The agencies will share epidemiological/surveillance and indicator data for agreed-upon priorities (i.e., water, air quality, and public health).</li> </ul> | Marta Jordan | Jose Velasco, OBH's ? |         |
| <p><b><u>11 - Action:</u></b></p> <h2>Ex. 5 Deliberative Process (DP)</h2>   |              |                       | Ongoing |

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